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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/766,324

01/29/2004

Adrian Neil Bargh

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EXAMINER

NAGPAUL, JYOTI

ART UNIT

PAPER NUMBER

1743

MAIL DATE

DELIVERY MODE

08/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/766,324

Applicant(s)

BARGH, ADRIAN NEIL

Examiner

Jyoti Nagpaul

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **“the space”**, **“the vacuum pump”** and **“a portion of pipe with rectangular cross section”** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 2-9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to Claim 2, applicant recites "a pressure reducing device for maintaining the pressure in the space between the tubes at less than atmospheric pressure in use". Examiner would like to point out that the recitation "for maintaining the pressure in the space between the tubes at less than atmospheric pressure in use" is a functional or method recitation and is of no patentable significance in apparatus claims. Examiner would like to suggest that applicants delete "in use" from the claim language as this clause is directed to method and not apparatus claims. Additionally, "the space" is not positively recited in the claim. Also, claim 2 recites the limitation "the space" in line 1. There is insufficient antecedent basis for this limitation in the claim.

With respect to Claim 3, applicant recites, "a pump for moving liquid in use along the inner tube from a liquid supply container to a dispensing means situated at the other end of the coaxial tubes from the liquid supply container". Examiner points out that the recitation "for moving liquid in use along the inner tube from a liquid supply container to a dispensing means situated at the other end of the coaxial tubes from the liquid supply container" is a functional or method recitation and is of no patentable significance in

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apparatus claims. Examiner suggests that applicants delete "in use" from the claim language as this clause is directed to method and not apparatus claims. Also, "a liquid container" and "a dispensing means" are not positively recited.

With respect Claim 6, applicant recites, "an O-ring is used to seal the volume between the inner and outer tubes". This recitation is a method step and is of no patentable significance in apparatus claims. Correction is needed.

With respect to Claim 7, applicant recites, "a portion of pipe with rectangular cross-section is used to seal the volume between the inner and outer tubes." This recitation is a method step and is of no patentable significance in apparatus claims. Correction is needed. Also, the limitation "pipe" in line 1. There is insufficient antecedent basis for this limitation in the claim. The pipe is not defined and it is unclear as to what the applicants are referring to.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: How does one minimize the gas content of a liquid using a pair of coaxial tubes? Applicants need to recite method steps for accomplishing the claimed recitation of minimizing the gas content of a liquid using a pair of coaxial tubes.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

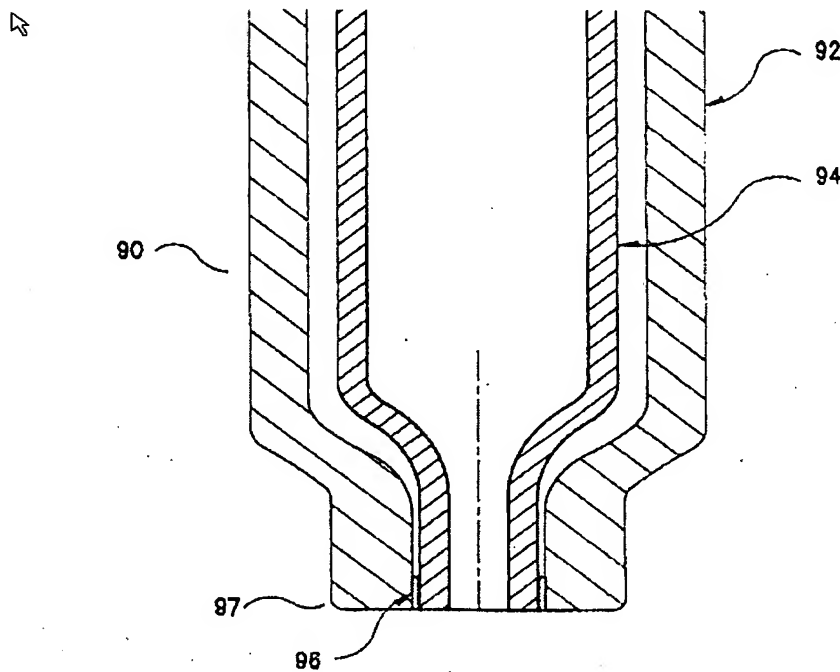
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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Holt (US 5468453).

Holt teaches a pipette probe in an automated chemical analysis system. The probe comprises an inner tube (94) made up of PTFE and therefore is at least partially gas permeable. The probe further comprises an outer tube (92) that surrounds the inner tube (94). (See Figure below) (See abstract)



Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claims 2-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt in view of Tsukishima (US 5558837).

Refer above for the teachings of Holt. Holt further teaches an O-ring (96).

Holt fails to teach a pressure-reducing device for maintaining the pressure in the space between the tubes at less than atmospheric pressure in use. Holt further fails to teach a pump for moving liquid in use along the inner tube from a liquid supply container to a dispensing means situated at the other end of the coaxial tubes from the liquid supply container.

Tsukishima teaches a fluid delivery system comprising a dispenser with a pair of coaxial tubes. (See Figure 2) The system further comprises a pressure reducing device (13a) and a pump (7) for dispensing the liquid from a liquid container (10). With respect to applicants recitation in claim 2, "for maintaining the pressure in the space between the tubes at less than atmospheric". The device of Tsukishima is clearly capable of performing this function.

Because both references teach devices for dispensing droplets. It would have been obvious to one of ordinary skill in the art of dispensers to provide a vacuum pump and syringe pump to the device of Holt to achieve the predictable result of transferring liquids more precisely and accurately.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Nagpaul whose telephone number is 571-272-1273. The examiner can normally be reached on Monday thru Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JN


Jill Warden
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